

# EUROPEAN PATENT OFFICE

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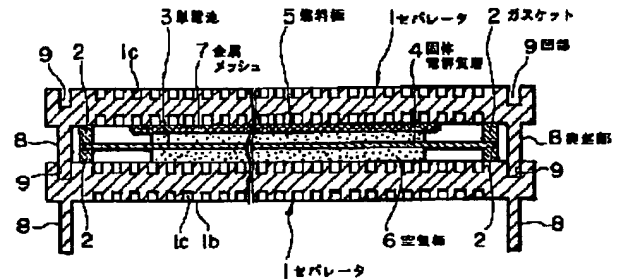
APPLICATION DATE : 18-10-95  
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APPLICANT : TOKYO GAS CO LTD;

INVENTOR : MATSUZAKI YOSHIO;

INT.CL. : H01M 8/02

TITLE : SOLID ELECTROLYTIC FUEL CELL  
HAVING MECHANICAL SEAL  
STRUCTURE



ABSTRACT : PROBLEM TO BE SOLVED: To improve performance in a heat cycle without diffused joining of a unit cell, separator, and a gasket inserted between them in a high temperature of 1,000°C.

SOLUTION: This cell alternately laminates a flat unit cell 3 in which an air pole 6 and a fuel pole 5 are respectively disposed on both surfaces of a solid electrolyte layer 4 and a separator 1 which electrically connects adjoining unit cells 3 in series and distributes a fuel and oxidizer gas to each unit cell 3, and disposes a metal mesh 7 or a metal felt between the fuel pole 5 and the fuel gas circulation passage side of the separator 1. In this structure, a recess part 9 is provided in the periphery of an upper surface of the separator 1, and also a projection part 8 is provided in the periphery of a lower surface, thereby a dovetail tenon structure is formed in which the projection part 8 and the recess part 9 are respectively fitted into the adjoining recess part 9 or projection part 8 to be stacked.

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